

AMENDMENTS TO CLAIMS

Listing Of Claims

Claims 1-24 (canceled)

25. (currently amended) A semiconductor component comprising:

a substrate having a surface;

a conductive layer comprising a ~~plurality of first portions and a plurality of second portions~~ metal substantially covering the surface configured to provide a material for forming elements of the component by laser machining;

a plurality of conductors on the surface comprising ~~the first portions of the conductive layer~~ configured for signal transmission separated from one another by ~~the non signal transmitting~~ second portions of the conductive layer;

a plurality of grooves in the conductive layer defining a size, a spacing and a shape of the conductors and electrically isolating the conductors from the second portions of the conductive layer; and
~~the second portions of the conductive layer; and~~

at least one semiconductor die on the substrate in electrical communication with the conductors.

26. (previously presented) The semiconductor component of claim 25 wherein the conductors comprise a plurality of pads and the semiconductor die is wire bonded to the pads.

27. (previously presented) The semiconductor component of claim 25 wherein the semiconductor die is flip chip mounted to the conductors.

28. (previously presented) The semiconductor component of claim 25 wherein the substrate comprises a material selected from the group consisting of plastic, glass filled resin, silicon, ceramic, metal, germanium, and gallium arsenide.

29. (previously presented) The semiconductor component of claim 25 wherein the conductors comprise a plurality of contacts adapted for electrical connection to outside circuitry.

30. (currently amended) A semiconductor component comprising:

a substrate having a surface;

a conductive layer comprising a metal ~~foil attached to~~ and substantially covering the surface configured to provide a material for forming elements of the component by laser machining;
~~surface;~~

a plurality of conductors on the surface comprising portions of the conductive layer configured for signal transmission, the conductors separated from one another by non signal transmitting remaining portions of the conductive layer;
~~comprising the metal foil;~~

a plurality of grooves in the ~~metal foil~~ conductive layer defining a size, a spacing and a shape of the conductors, each conductor ~~defined~~ electrically isolated from the remaining portions of the conductive layer by a groove on either side; and
~~and having a portion of the metal foil on either side separated by the groove; and~~

a semiconductor die flip chip mounted or wire bonded to the substrate in electrical communication with the conductors.

31. (previously presented) The semiconductor component of claim 30 further comprising a plurality of contacts on the conductors adapted for electrical connection to outside circuitry.

32. (previously presented) The semiconductor component of claim 30 further comprising a plurality of conductive vias in the substrate in electrical communication with the conductors and with a plurality of contact balls on a second surface of the substrate.

33. (previously presented) The semiconductor component of claim 30 wherein the component comprises a chip module, a multi chip module or a package.

34. (previously presented) The semiconductor component of claim 30 further comprising an encapsulant at least partially covering the semiconductor die and at least a portion of the surface.

35. (currently amended) A semiconductor component comprising:

- a substrate having a surface;

- a conductive layer comprising a metal substantially covering the surface configured to provide a material for forming elements of the component by laser machining;

- a plurality of conductors on the surface comprising first portions of the conductive layer configured for signal transmission;

- a plurality of grooves in the conductive layer electrically isolating and defining a size, a spacing and a shape of the conductors, each conductor defined by a pair of grooves and separated from an adjacent conductor by a non-signal transmitting second portion of the conductive layer having an edge defined by a groove; and

a semiconductor die on the substrate in electrical communication with the conductors.

36. (previously presented) The semiconductor component of claim 35 wherein the die is flip chip mounted or wire bonded to the conductors.

37. (previously presented) The semiconductor component of claim 35 wherein the conductors comprise a plurality of pads bonded to the die and a plurality of contacts adapted for electrical connection to outside circuitry.

38. (previously presented) The semiconductor component of claim 35 wherein the substrate comprises a semiconductor material and an electrically insulating layer on the surface.

39. (previously presented) The semiconductor component of claim 35 wherein the substrate comprises a material selected from the group consisting of plastic, glass filled resin, ceramic, silicon, metal, germanium, and gallium arsenide.

Claims 40-46 (canceled)

47. (currently amended) A semiconductor component comprising:

a substrate having a surface;

a conductive layer comprising a metal substantially covering the surface configured to provide a material for forming elements of the component by laser machining; and

a plurality of conductors on the surface comprising portions of the conductive layer configured for signal transmission; and

a plurality of grooves in the conductive layer electrically isolating and defining a size, a shape and a spacing of the conductors, each conductor having opposing edges defined by a pair of grooves, each conductor having non signal transmitting remaining portions of the conductive layer on either side separated from the opposing edges by the pair of grooves; and

a semiconductor die on the substrate in electrical communication with the conductors.

48. (previously presented) The semiconductor component of claim 47 wherein the semiconductor die is flip chip mounted or wire bonded to the conductors.

49. (previously presented) The semiconductor component of claim 47 wherein each conductor has a first width of about 5 μm .

50. (previously presented) The semiconductor component of claim 47 wherein each groove has a second width of about 5 μm .

51. (previously presented) The semiconductor component of claim 47 wherein the conductive layer includes an opening for attaching the die to the substrate.

52. (currently amended) A semiconductor component comprising:

a substrate having a surface;

a conductive layer substantially covering the surface comprising a metal configured to provide a material for forming elements of the component by laser machining;
~~having a plurality of first portions and a plurality of second portions;~~

a plurality of conductors on the surface having a size, a spacing, and a shape defined by a plurality of

grooves through the conductive layer, each conductor comprising a first portion of the conductive layer configured for signal transmission separated from an adjacent conductor by a groove and a second portion of the conductive layer which is not configured for signal transmission;

a plurality of conductive vias through the substrate in electrical communication with the conductors; and

a semiconductor die on the substrate in electrical communication with the conductors.

53. (previously presented) The semiconductor component of claim 52 further comprising a plurality of contacts on the substrate in electrical communication with the conductive vias.